

## Higgs Theory

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Higgs physics enters a precision era and the High Luminosity run of the LHC will reveal access to an uncharted territory of the Higgs landscape.

Not only will it probe new channels with multiple Higgs bosons, but it will also access rare corners of the phase space when the Higgs is produced in extreme kinematical conditions (high  $p_T$  or far off-shell) or when it decays (exclusively or inclusively) into light quarks. The importance of these measurements are tantalizing since they will inform on some couplings that control the fate of the EW vacuum as well as the size of the quantum corrections to the Higgs mass and could tell if the Higgs boson is the only source of mass for the elementary particles.

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